



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,474	02/26/2002	Paul Davids	10559-682001 / P13240	4879

20985 7590 03/19/2003

FISH & RICHARDSON, PC  
4350 LA JOLLA VILLAGE DRIVE  
SUITE 500  
SAN DIEGO, CA 92122

EXAMINER

PETKOVSEK, DANIEL J

ART UNIT PAPER NUMBER

2874

DATE MAILED: 03/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/085,474

Applicant(s)

DAVIDS ET AL.

Examiner

Daniel J Petkovsek

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on March 7, 2003 (election).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 10-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 July 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Drawings*

1. The corrected or substitute drawings were received on July 5, 2002. These drawings are accepted.

### *Specification*

2. The abstract of the disclosure is objected to because the abstract does not clearly describe Applicant's invention as claimed after election of claims 1-9. Correction is required. See MPEP § 608.01(b).

3. The disclosure is objected to because of the following informalities: with new accepted drawings as filed on July 5, 2002, Figures 12A, 12B, and 12C no longer exist. Please omit the description of these figures from the "Description of the Drawings" sections. Also, please omit the description of these figures from the "Description" section, specifically page 14 line 20 through page 15 line 19, as well as any other mention of figures 12A-12C.

Appropriate correction is required.

4. There is no "Summary" section in the specification.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-3, and 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Bazylenko et al. U.S.P. No. 6,154,582.

Bazylenko et al. U.S.P. No. 6,154,582 teaches (Fig. 5, column 7 line 55 through column 8 line 7, claim 7) a waveguide comprising: a top surface 15 of the waveguide 14 that defines a 45 degree angled mirror, causing total internal reflection of the waveguide core. The mirror 15 couples light from the waveguide core to a photodiode 9, the properties of which are inherent in a photodiode. Regarding claim 9, the waveguide 14 is disposed above a substrate and the mirror directs a mode propagated through the core into the semiconductor substrate 8.

7. Claims 1-3, and 7-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Tran et al. U.S.P. No. 6,323,480.

Tran et al. U.S.P. No. 6,323,480 teaches (ABS, Fig 1) a waveguide comprising: a core 26 having a top surface 32 that defines an angle and acts as a reflector to create total internal reflection of the waveguide core 26, the device comprising photodetectors (such as photodiodes) in which the core 26 is coupled to the photodiode, the properties of which are inherent. Regarding claim 9, the waveguide 26 is disposed above a substrate and the mirror directs a mode propagated through the core into the substrate.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bazylenko et al U.S.P. No. 6,154,582.

Bazylenko et al. U.S.P. No. 6,154,582 teaches (Fig. 5, column 7 line 55 through column 8 line 7, claim 7) a waveguide comprising: a top surface 15 of the waveguide 14 that defines a 45 degree angled mirror, causing total internal reflection of the waveguide core. The mirror 15 couples light from the waveguide core to a photodiode 9, the properties of which are inherent in a photodiode. Bazylenko et al. '582 does not explicitly teach that the waveguide is coupled to a phototransistor. It would have been obvious at the time the invention was made to a person having ordinary skill in the art that any photoreceiver/photodetector could be used in the device of Bazylenko et al. '582 in place of the photodiode as disclosed.

#### *Inventorship*

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

U.S.P. No. 5,883,988 to Yamamoto et al.

U.S.P. No. 5,416,870 to Chun et al. (see ABS, Fig. 1)

U.S.P. No. 4,969,712 to Westwood et al. (see claim 1)

U.S.P. No. 4,772,787 to Trommer. (see ABS, column 2 lines 23-32)

U.S.P. No. 4,747,649 to Heinen et al. (see claim 1)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J Petkovsek whose telephone number is (703) 305-6919. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (703) 308-4819. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 872-9321.



Daniel Petkovsek  
March 13, 2003



Brian Healy  
Primary Examiner